

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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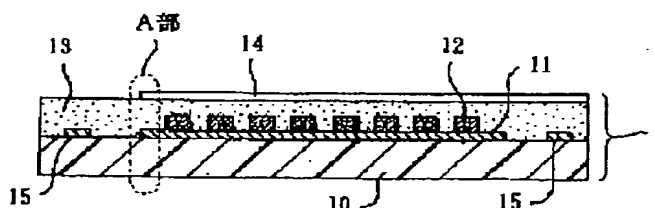
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TITLE : COLOR FILTER SUBSTRATE FOR  
REFLECTION TYPE LIQUID CRYSTAL  
DISPLAY DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To obtain bright display on a screen and high durability and to prevent generation of display defects by successively depositing an adhesive layer, a silver alloy thin film and a color filter on a substrate in such a manner that the silver alloy thin film is formed as an electrically independent pattern and that the pattern of the silver alloy thin film is not exposed from the end face of the substrate.

SOLUTION: The substrate essentially consists of a nonalkali glass substrate 10, and a reflection film 11, a color filter 12 formed by a pigment dispersion method, an overcoat layer 13 comprising an acryl resin or the like and a transparent electrode 14 successively deposited on the substrate 10. The reflection film 11 is formed as a solid face to cover the forming region of the color filter 12 and inside from the edge of the substrate 10. The reflection film 11 has a three-layer structure comprising a mixture oxide thin film as an adhesive layer, a silver alloy thin film and a mixture oxide thin film. The mixture oxide thin film consists of indium oxide as the base material with addition of cerium oxide, tin oxide and titanium oxide.

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